Review Comments
Source Control Evaluation Addendum
Phillips 66 Willbridge Terminal
Portland, Oregon
Dated October 1, 2015

Submitted January 21, 2016

Following are the United Stated Environmental Protection Agency's (EPA) comments on the October 1, 2015 document entitled, Source Control Evaluation Addendum, Phillips 66 Willbridge Terminal, Portland, Oregon (SCE Addendum) prepared by AECOM. The Phillips 66 Willbridge Terminal (ECSI# 1549, former ECSI# 177) is located in the Doane Lake/Willbridge GeoRegion on the riverfront at River Mile 7.6 west (RM7.6W).

Stantec prepared the original Source Control Evaluation Report (SCE Report) during January 2011 and the SCE Addendum summarizes additional source control evaluation activities that were completed in accordance with the Sediment Sampling Work Plan (Work Plan) submitted by AECOM in October 2014. EPA has not provided review comments on the 2011 SCE Report or 2014 Work Plan and comments presented herein focus on the SCE Addendum. The portion of the Phillips 66 Willbridge Terminal site investigated in the SCE Addendum is limited to the small area on the south end of the site that discharges to Outfall 19.

General Comments

1. The table below summarizes the information presented in the SCE Addendum and EPA's recommendations for the Outfall 19 portion of the Phillips 66 Willbridge Terminal site. Based on current information, EPA cannot determine whether source control measures (SCMs) are effective, and whether the stormwater pathway is a current or potential future contamination source to the Willamette River (Outfall 19). Additional stormwater sediment and runoff sampling is recommended after SCMs are complete to evaluate their effectiveness.

2. Future sampling efforts should consider the representativeness of data collected (i.e., limit impacts from offsite sources) and the SCE analysis and reporting should be conducted in accordance with Portland Harbor Joint Source Control Strategy (JSCS) guidance.

EPA Site Status Summary – Phillips 66 Willbridge Terminal (Outfall 19)

Question	Answer	Description
Are source control measures (SCMs) being implemented?	No	There are no SCMs described in the text. Refer to Specific Comment #1c below.
Are there JSCS SLV exceedances?	Yes	Mercury (MH-11-IN), and Bis(2-Ethylhexyl)phthalate (MH-11-OUT and MH-11-DRUM)
Are there stormwater PRG exceedances?	NA	No comparison to stormwater Portland Harbor Preliminary Remediation Goals (PRGs) was presented
Are pollutant concentrations typical of Portland Harbor industrial sites (e.g. below the knee of the curve)?	NA	No comparison to typical Portland Harbor industrial sites was presented.
Are stormwater COCs from this site the same as those defined for the associated SDU?	NA	Stormwater from this site discharges to sediment decision unit (SDU) RM9W, which has the following constituents of concern (COCs): Total PCBs, PeCDD, and TCDD. Total PCBs were not detected in sediment samples. However, the method detection limit (MDL) was greater than the JSCS SLV; therefore, it is uncertain whether Total PCBs is a COC at this site. Sediment samples were not analyzed for PeCDD and TCDD; therefore, it is also unknown whether these are COCs at this site.
Do sampled stormwater events meet JSCS criteria?	NA	No stormwater runoff samples were collected.
Is further stormwater data collection recommended?	Yes	Refer to Specific Comments 2 and 4 below.
Are additional SCMs recommended?	Yes	Cleaning and/or repair of stormwater lines is recommended.

Specific Comments

1. Section 1.0 Scope of Work

    a. The locations of the sediment sampling and video survey in relation to the site boundaries and Willamette River should be shown in in one of the figures. It is difficult to discern from Figure 2 which portion of the site was investigated for the SCE Addendum.

    b. The JSCS guidance (section D.2.2) states that drainage areas, direction of stormwater flow, and paved/unpaved areas should be shown on facility stormwater maps. Accordingly, the area that contributes stormwater flow to manholes 9 and 11 (MH-9 and MH-11) and stormwater separator #001 should be described in the text and shown in Figure 2. Additionally, paved and unpaved portions of the property should be identified and shown in a figure. It is unclear from the figures where the stormwater sediments sampled in MH-9 and MH-11 may have originated.

    c. Any previous sampling efforts and analytical results from MH-9 and MH-11 should be presented (if available), as well as any source control measures (SCMs) that have been implemented to reduce stormwater sediments in this portion of the site.

2. Section 2.0 Sediment Sampling

    a. When collecting stormwater sediment samples, an effort should have been made to collect samples representative of the Phillips 66 site. Samples collected from MH-11 are also representative of offsite sources making it difficult to determine risk of recontamination from the Phillips 66 site. Collecting samples of stormwater sediments within the storm drain lines upstream of MH-11 is recommended.

    b. Stormwater from MH-9 and MH-11 discharges to Outfall 19 (OF-19), which is located within area of potential concern (AOPC) 18. The contaminants of interest (COIs) within AOPC 18 include aluminum, barium, cadmium, copper, iron, manganese, mercury, silver, zinc, PCBs, PAHs, delta-HCCH, dieldrin, endrin, and chloroethane. Accordingly, analysis of sediment samples should include each of these analytes. Specifically, the following analytes should be added to the existing list of analytes: aluminum, barium, iron, delta-HCCH, dieldrin, endrin, and chloroethane.

3. Section 3.0 Analytical Results and Comparison to Screening Level Values

    a. Samples were collected within and outside of the steel structure in MW-11 on both March 19, 2015 and June 23, 2015. Table 1 should clearly indicate which data are from sediment sampled on March 19, 2015 and which data are from sediment sampled June 23, 2015.

b. The presentation of analytical results should include laboratory detection limits, as stated in section D.7.1.1 of the JSCS. These should be provided in Table 1 to enable a comparison of detection limits to JSCS screening level values (SLVs).

c. The analytical results should also be compared to the Preliminary Remediation Goals (PRGs) of RAOs 1, 2, 5 and 6, which provide remedial objectives related to sediment exposures.

d. To provide an additional line of evidence, analytical results should be compared to typical Portland Harbor stormwater sediment charts (Appendix E of Guidance for Evaluating the Stormwater Pathway at Upland Sites).

4. Section 5.0 Conclusions and Recommendations: During cleanout of the stormwater lines, additional sediment sampling is recommended to characterize stormwater sediments from the site. To evaluate the effectiveness of onsite SCMs, collection of stormwater runoff samples in accordance with section D.5 of the JSCS guidance should be performed after cleanout activities are complete. As described in Specific Comment 2 above, the analysis of future samples should include all COIs associated with AOPC 18.